



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,549	12/07/2000	William C.Y. Lee	G&C 139.147-US-U1	1752
22462	7590	09/27/2005	EXAMINER	
GATES & COOPER LLP HOWARD HUGHES CENTER 6701 CENTER DRIVE WEST, SUITE 1050 LOS ANGELES, CA 90045			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

u

Office Action Summary	Application No. 09/733,549	Applicant(s) LEE ET AL.	
	Examiner Shick C. Hom	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 20, 21, 25, 27-29, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 8, 10, 15, 16, 20, 21, 25, 27-29, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) 2, 4-7, 9, 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-16, 20-21, 25, 27-29, and 31-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in

Art Unit: 2666

order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faber (6,405,052) in view of Gustafsson et al. (6,643,275).

Regarding claims 1, 3, 8, 10:

Faber discloses a method for controlling transmit power in a wireless communications system, comprising: (b) determining a bit error rate for a portion of a frame transmitted by the wireless communications system (c) adjusting transmit power in the wireless communications system based on the determined bit error rate (see the abstract, col. 3 line 64 to col. 4 line 34, and col. 8 lines 55-61 which recite the transmit power control loop being based upon having the preamble portion of the frame received without error clearly anticipate the step of determining a bit error rate for a portion of a frame transmitted by the wireless communications system and adjusting transmit power in the wireless communications system based on the determined bit error rate).

Art Unit: 2666

For claims 1, 3, 8, 10, Faber discloses all the subject matter of the claimed invention with the exception of (a) replacing at least a portion of a frame with an orthogonal code.

Gustafsson et al. from the same or similar fields of endeavor teach that it is known to provide the step of (a) replacing at least a portion of a frame with an orthogonal code (see col. 5 line 56 to col. 6 line 2 and col. 6 lines 22-48 which recite the frame having a separate preamble and data portion and the preamble signature pattern being selected from a plurality of orthogonal codes). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step of replacing at least a portion of a frame with an orthogonal code as taught by Gustafsson et al. in the communications method and apparatus of Faber. The step of replacing at least a portion of a frame with an orthogonal code can be implemented by substituting the frame structure including the orthogonal codes at the preamble of Gustafsson et al. for the frame of Faber. The motivation for using the frame structure having the orthogonal codes at the preamble as taught by Gustafsson et al. in the communication method and apparatus of Faber being that it provides more reliability for the system since the system can better receive

Art Unit: 2666

the preamble without interference at the receiving end using orthogonal codes.

5. Claims 15-16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang (6,397,043) in view of Chen (5,960,361).

Regarding claims 15 and 20:

Kang discloses the method and apparatus for re-transmitting frames with errors in a wireless communications system, comprising: (a) determining whether a frame was received in error during a transmission in the wireless communications system; and (b) increasing transmit power for a re-transmission of the frame received in error in the wireless communications system (see 6 col. 5 lines 43-44, col. 6 lines 41-47, Fig. 6, and col. 6 line 66 to col. 7 line 18 which recite that if the error rate count is higher than a specified level then message is re-transmitted and the transmit power is increased).

Regarding claims 16 and 21:

Kang discloses wherein the increasing step comprises immediately increasing the transmit power in when the frame is received in error (see col. 6 lines 41-47 which recite increasing the transmit power of the frame).

For claims 15-16 and 20-21, Kang discloses all the subject matter of the claimed invention with the exception of means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error.

Chen from the same or similar fields of endeavor teach that it is known to provide means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error (see col. 3 line 48 to col. 4 line 16 which recite the increasing transmit power level and decreasing it in a sawtooth feedback fashion as shown in Figs. 2-3, clearly reads on increasing power by steps when frames are received in error). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error as taught by Chen in the method and apparatus of Kang. The means for increasing transmit power being in accordance with the frame's position in accordance with an amount of data transmitted or by steps when one or more starting frames are received in error can

Art Unit: 2666

be implemented by connecting the means for increasing transmit power in the sawtooth step fashion of Chen in the means for controlling transmit power of Kang. The motivation for using the means for increasing transmit power in the sawtooth step fashion as taught by Chen in the method and apparatus of Kang being that it provides more efficiency for the system since the system can save power and prevent excessive use of power at the transmitting end.

6. Claims 25, 27-29, and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (4,829,524) in view of Faber (6,405,052).

Regarding claims 25, 27-29, 31-32:

Yoshida discloses a method for re-transmitting frames with errors in a communications system, comprising: (a) determining whether a portion of a frame, wherein the portion comprises a subset of bits in the frame, was received in error during a transmission in the communications system, wherein the frame includes an indicator field comprised of a plurality of bits, each of the bits indicates a parity error for its corresponding portion of the frame; and (b) involving re-transmission of only the portion of the frame received in error without invoking a re-transmission of the entire frame in the communications system

Art Unit: 2666

(see abstract, col. 7 lines 42-51, and col. 7 line 66 to col. 8 line 3 which recite transmitting and receiving data in HDLC frame format as shown in Fig. 1, including the frame check sequences and flag sequence which corresponds to the bits indicating parity for corresponding portion of the frame, being divided into units including means for resending the code data corresponding the unit to the transmission side when it is determined that the data in the unit has been erroneously received and retransmitting of the data in the unit; further, col. 10 lines 28-41 which recite checking for occurrence of reception error at the receiver whereby a control signal is used to interrupt the transmission of the data and informs the retransmission request start line number to the transmission side to restart the transmission of the data from the retransmission request start line number clearly anticipate determining whether a portion of a frame was received in error during transmission, wherein the frame includes an indicator field comprised of a plurality of bits, each of the bits indicates a parity error for its corresponding portion of the frame; and (b) involving re-transmission of only the portion of the frame received in error without invoking a re-transmission of the entire frame).

Art Unit: 2666

For claims 25, 27-29, 31-32, Yoshida discloses all the subject matter of the claimed invention with the exception of wherein the communications system being a wireless communications system.

Faber from the same or similar fields of endeavor teach that it is known to provide the communications system being a wireless communications system (see col. 3 line 64 to col. 4 line 34 which recite the CDMA mobile communication system clearly anticipate the wireless communications system). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the communications system being a wireless communications system as taught by Faber in the communications method and apparatus of Yoshida. The communications system being a wireless communications system can be implemented by simply substituting the CDMA mobile communication system of Faber for the communication system of Yoshida. The motivation for using a wireless communication system as taught by Faber in the communications method and apparatus of Yoshida being that it provides the desirable added feature of wireless communication.

Art Unit: 2666

Allowable Subject Matter

7. Claims 2, 4-7, 9, and 11-13 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watanabe et al. disclose a communication method and communication equipment.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH



DANG TON
PRIMARY EXAMINER